

## **Information and Technology Track**

### **E-Business Comes to Environmental Protection: Using Technology to Streamline Regulatory Procedures Workshop**

#### **One Stop: The Future of Managing Environmental Data Electronically**

The Mississippi Department of Environmental Quality (MDEQ) is reinventing the way it manages environmental data. The goal was to develop a reporting and planning system that is convenient and concise and eliminates as much paper work as possible, while providing more efficient service to environmental stakeholders.

The One Stop reporting initiative is focused on four areas of activity related to MDEQ responsibilities: compliance assurance, permitting, site master file, and activity tracking. Specific computerized processes, called "core capabilities", have been developed for these four areas to support the environmental data MDEQ generates and receives.

"The approach is not to reinvent the wheel," said Melanie Morris, MDEQ Office of Pollution Control Information Systems Manager. "We are building upon the successes of other states, such as Minnesota, New Jersey, and Louisiana and are enhancing and modifying these successes to meet Mississippi's specific needs."

Completed in October 2000, the system promotes an enhanced exchange of information between MDEQ, business and industry, and the public by allowing for the following features:

- Electronic submittal of permit applications that are customized and eliminate the applicant's need to respond to questions that are not relevant for the applicant's specific organization;
- Effective and efficient notification process to members of the public who would potentially be affected by the proposed activity requiring a permit to promote meaningful public input early in the application review process;
- Comprehensive site master files that include agency-wide information so that all correspondence and data is available at one location; and
- MDEQ work activity tracking data that will provide greater accuracy in staff tasking.

"We believe all of these processes will help individuals, businesses and industry reduce their burden," said Morris. "This single reporting method will also allow the general public greater access to environmental information in Mississippi."

Taking its first step in the fall of 2000, MDEQ is successfully managing environmental data related to permitting, compliance and enforcement, and work activity tracking electronically. The system also includes program specific features required to manage Air related data.

One Stop is partially funded by a grant from the U.S. Environmental Protection Agency (EPA). Mississippi was one of the first thirteen states to receive the \$500,000 One Stop Reporting Grant from EPA.

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#### Using Electronic Commerce to Build Upon a Strong Integrated Database

In 1993, Pennsylvania began work on its vision of an integrated data system. The need became even more critical when executive staff could not answer Department wide compliance questions. The public's demand to know inventory and compliance information added fuel to the fire.

Phase I saw the introduction of the Client/Site Application module in 1995. All environmental programs could use this module. Build into the Application Process are the Department's Money Back Guarantee, standard letter notifications and creation of the client/site information.

Phase II built upon this foundation to create the Inventory and Compliance/Enforcement modules. All programs can utilize the Compliance and Enforcement module developed from 1996 to 1999. Now comprehensive compliance reports can be made which reflect true total state wide activities. These reports are available to the public as well as to Department staff.

While Phase II Inventories only included a core group of programs, other environmental programs are being brought aboard to add their inventory details. The Air Quality, Storage Tanks, Land Recycling, Pollution Prevention and Compliance Assistance, Dams and Encroachments and Safe Drinking Water programs are all actively developing inventory requirements.

As part of the Electronic Commerce initiative, three projects were selected by DEP Executive staff for projects in 1999: Electronic Permitting, Electronic Fee Collection and Electronic Reporting.

**Electronic Permitting** for the Oil and Gas Well Program. This permit can be applied for on line after pre-registration with the Department. Upon submittal, with attachments, the application will be processed through the Application Processing module. Oil and Gas applications require varying fees, depending upon well type.

**Electronic Fee Collection** is an integral part of application processing. Fees will be accepted and processed through either an ACH (Automated Clearing House) debit or credit card transaction.

**Electronic Reporting** which will involve the NPDES Discharge Monitoring Reports (DMR). On line web forms utilizing the "thin client" approach will allow facilities to input their required DMR data. Use of **PKI** technology to insure non refutability will protect both DEP and the public's interests. **XML** (eXtensible Markup Language) will be used to transmit DMR data from the facility's in house data system to DEP. Once the data is resident at DEP, and in an XML format, DMR data will be made available for retrieval by other agencies, most notably, EPA.

Some of the other eCOMM projects in development are eFACTS GeoSpatial, GIF (General Information Form), Mobile platform for sample submission and compliance activities, and Document Archiving.

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#### **Internet-Based Regulatory Reporting and Information Management System NASA White Sands Test Facility State of New Mexico Environment Department**

##### **PROBLEM:**

Environmental law and regulations require an extensive number of regulatory reports, and other information of an official nature, to be made available from the NASA White Sands Test Facility (WSTF) to the EPA and the State of New Mexico Environment Department (NMED). The NASA facility's primary purpose is to provide testing services to NASA for the United States space program.

Environmental compliance activities at WSTF are extensive and encompass all media; inclusive of air, groundwater, hazardous waste, surface water, and solid waste (closed landfill). There are currently more than 215 ground-water monitoring wells and multi-port sampling zones in operation at the facility. These environmental operations and permit requirements mandate extensive paper reporting deliverables, quality assurance and quality control procedures, and data manipulation and formatting. NASA estimates that a minimum of ten (10) full-time employees, per year, are required to prepare the necessary cross-media compliance documentation and regulatory reports.

##### **INNOVATION:**

The NASA WSTF and the NMED are partners in a Project XL Reinvention Initiative to implement an Internet (web)-based information management and regulatory reporting system. NASA will simplify and streamline the process for fulfilling the regulatory reporting deliverable requirements of multiple Bureaus within the NMED by storing and managing all deliverables in a single web-based system that utilizes electronic mail notification procedures. The e-mail system will include a hypertext link to the specific document on the web-based system, and will also provide the regulatory agency with the necessary certification and secure signature procedures as required by regulations.

This system will provide regulatory agencies with real-time desktop access to site-specific environmental compliance information and save resources including document preparation time, white paper usage, and triplicate reproduction requirements. In addition, information and resource sharing will enhance inter- and intra-Bureau communication and benefit the regulatory agencies by providing graphical illustrations of current conditions, real-time updates of plume-front remediation efforts, access to the groundwater monitoring database system, and electronic archival of historical documentation. The web-based system will also encourage public participation in Federal facility compliance initiatives by providing access to all regulatory reports and record-keeping, information on current environmental conditions, remediation systems, and miscellaneous projects including compliance reporting, waste minimization, recycling, ISO 14001, community-right-to-know, and NEPA.

##### **RESULTS:**

The Project XL Agreement was signed on October 2000.

MILESTONE NO. 2 - CD-ROM Electronic Submittals, Target Finish= 11/26/01  
MILESTONE NO. 3 – Bureau Specific Web Posting-Release 1 Target Finish=6/16/02  
MILESTONE NO. 4 – Bureau Specific Web Posting-Release 2, Target Finish= 9/16/02  
MILESTONE NO. 5 – Bureau Specific Web Posting-Release 3, Target Finish= 2/9/04  
MILESTONE NO. 6 – Public, Graphics and GIS Modules, Target Finish= 2/9/04

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